



## Comparison of Viewpoint of Obese Children and Their Parents About their Quality of Life in Shahrekord

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### ABSTRACT

**Background & Objective:** The worldwide incidence of obesity is increasing rapidly not only in industrialized countries, but also in developing countries also seen an increase in prevalence. Health and quality of life of the most important factors in self-care behaviors and self-monitoring is particularly important in the prevention of obesity and its complications. From this perspective, the present study compared obese children and their parents to determine the quality of life for children in Shahrekord done. **Method:** In a cross - sectional study, 15 primary school boys and girls in Shahrekord were selected by cluster random sampling. The height and weight of students of the school to the standard method measured and body mass index (BMI) was calculated. According to the Center for Disease Control, subjects with higher BMI percentile 95 for age and gender as obese and with a BMI percentile of 85 to 95 as overweight considered and Sort by Morgan 140 children selected randomly. Then the quality of life of their vision and their parents examined .Data collected by Questionnaire (pedsQoL) in both the children and parents about physical (8 items), emotional (5 items), social (5 questions ) and school performance (5 questions). Data were analyzed with using inferential statistics (paired t-test, Mann-Whitney and Spearman correlation). **Results:** Results show mean score of quality of life in the viewpoint of children With obesity was  $0/92 \pm 0/59$  and in the viewpoint of their parents was  $1/29 \pm 0/87$  .Comparison means quality of life score of children and their parents using the t-test,  $\alpha$  Level of %5 indicates significant statically difference in total score ( $P < 0/001$ ). There were no significant differences between mean score of quality of life in the social and school dimension in the parents and children viewpoint , but in physical ( $p < 0/001$ ) and emotional ( $p < 0/05$ ), this difference was significant. Emotional quality of life of the girls was worse than boys ( $p < 0/001$ ). **Conclusion:** Result showed that the viewpoint of obese children and their parents about quality of life was different in total and in different dimension (especially the physical and emotional dimension) and parents view was more undesirable. Therefore in attention to the important role of parents in the care of children must consider view of parents about quality of life and provide background to their participation in care planning to as much as possible promotion of children quality of life.

**Keywords** Life Quality; Child's View Point; the View Point of Parents; Obesity.

### INTRODUCTION

Rapid changes has been occurred in the diet patterns and lifestyle of people regarding the development of urbanism, industrialization of communities, increase of economical growth and globalization of the market. These changes led to the increase of obesity and reduction of physical activity (1).

The increase of the number of people with obesity has been transformed to a concern in the field of public health. It has been estimated that about more than 1.5 milliard individuals of adults are involved with obesity or overweight all over the world (2). The findings of various researches have shown that the prevalence of obesity was evaluated as 16% in America in the years

2009-2010 (3). There are about 19 million people with overweight and 8 million people with obesity in Iran (4). The prevalence of obesity and overweight in the recent years also grew and has transformed into a serious problem around the world (5).

The findings of different researches in Iran also suggest that the prevalence of overweight and obesity in children is relatively high. Kelishadi et al. (2013) has shown in their research on 13486 students of 6-18 years old from 30 provinces of Iran that the prevalence of overweight and obesity in Iranian children and youth was equal to 9.7% and 11.9 %, relatively that shows an increase regarding the previous researches (6).

Moreover, the prevalence rate of obesity and overweight in the primary school students of Zahedan was evaluated as 10.3% and 8.9%, Neishabour (2009) as 7.8% and 10.9% and in the 7-12 years old students of Semnan (2010) as 14.3% and 18.8%, relatively. Also,

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11% of 6-11 years old students of Hamedan have overweight (10).

The findings of other researches also suggest that the prevalence of obesity and overweight in 8-12 years old male students of Shiraz was evaluated as 7.1% and 11.9%, respectively (11).

The obesity as a crisis in the field of public health is created through various agents same as extra energy absorption, inadequacy of energy consumption, lower level of basic metabolism, genetic background, reduction of fat oxidation, reduction of sympathetic activity and mental stresses (4).

The obesity in the childhood and adolescence years is of great importance due to psychological and physical effects and also due to some factors same as an increase of adulthood obesity, increase of incidence of diseases and death and force of heavy economic costs to the society (12).

Moreover, the obesity in children is accompanied by some mental effects as depression, antisocial personality disorder, reduction of self confidence and frustration. Also, it increases the risk of cardiovascular diseases, diabetes type 2, some kinds of cancers, high blood pressure, hyperlipidemia, heart attack, liver and gallbladder diseases, breathing problems and Osteoarthritis (5). The recent studies have shown that the increase of weight has negative effects on the life quality of children and there is an inverse linear relationship between life quality and BMI. Moreover, the life quality of children and youth with overweight and obesity is lower than their counterparts with normal weight (13).

Life quality is one of the most important dimensions of all individuals' life that has a multidimensional structure, including physical, emotional, social and educational performance and is not measurable through clinical and physiological measures. World Health Organization defines the life quality as "perception of individuals of their situation in the life in the framework of culture and the system in which they live. This perception relates to the aims, expectations, standards and concerns of individual (14).

The increasing prevalence of childhood obesity and its effect on the individuals and the society increase the need for some precautionary programs and effective remedial strategies (15). On the other side, it is important that the parents and the family attend in the treatment process during the intervention with children and youth (16). The researches have shown that the family-based programs are appropriate for treatment of overweight and such interventions are suggested as effective methods for modifying the unhealthy behavior of overweight children (17).

The incidence of obesity in addition to its importance for the person has significant effects for parents especially for mothers. Codification of social and medical policies in order to plan the appropriate program for

on time prevention and treatment of various problems in different fields of life and providing necessary services and supports is so essential (18) and it is not possible to provide comfort for such children and their family without paying attention to all the related dimensions of obesity especially the discussion of life quality. In this way, exploring the obesity-related problems and the satisfaction level of the obese person regarding their upcoming conditions or identification of life quality from the child and parents viewpoints cause that the dedicated needs of these persons are recognized from two involved viewpoints (child and parents) and awareness of the possible difference between these two view points and adoption of the appropriate treatment method helps a lot. There is no study in the field of comparing the life quality of obese child from these two dimensions in Iran, so the present study was conducted with the aim of comparing the viewpoint of obese children and their parents regarding the life quality of mentioned children in Shahrekord (2010).

## METHOD

The present cross-sectional study is a descriptive analytical research. At first, the names of all the schools in Shahrekord in the year 2010 and all the names of primary students of each school have been gathered from the department of education in Shahrekord; then, 15 state schools have been selected through cluster-random sampling method. The consent form of students to attend in this study has been sent to their parents and completed for the manager of each school and the parents. One of the most appropriate methods to define the overweight and obesity in children and youth is to use the Body Mass Index or BMI. For this aim, the height of the subjects have been measured via a stadiometer which has been set in 2m of the earth with accuracy of 0.5 cm (without shoe, legs next to each other, hips and shoulders in contact with stadiometer), and their weight has been measured by digital scale (Germany) with an accuracy of 100 g with light clothing without shoes. Then, their BMI has been calculated through the equation of weight (kg) to the square of height (m<sup>2</sup>).

BMI (body mass index) and CDC (centers for disease control and prevention) have been used to define the overweight and obesity rate. So that the BMI more than 95 percentile for the age and gender has been considered as obese, BMI between 85 to 95 % has been considered as overweight, a BMI between 5 to 85 % has been considered as normal weight (19).

In this way, by considering the Morgan table, 140 obese students that were qualified to attend the survey have been selected by a simple method. Then, their life quality has been investigated and compared from their viewpoints and their parent's viewpoints. Data collected by Questionnaire (pedsQoL) to define the life quality of children from two viewpoints of children and parents (Child & parent report), each includ-

ing 23 questions about physical (8 items), emotional (5 items), social (5 questions) and school performance (5 questions) by 5 points Likert scaling method. Higher scores indicate more problem and lower life quality. The stability of the questionnaire has been reported as 0.88 and 0.90 from child and parent view, respectively (20).

Moreover, the re-test method has been utilized after the translation of scientific validity through content validity and scientific reliability. The questionnaire has been completed by question from the child by the questioner and the questionnaire related to parents by the mother. Moreover, a public questionnaire including age, gender, job, and educational level of parent's variables has been completed through health records of the child. Data were analyzed using inferential statistics (paired t-test, Mann-Whitney and Spearman correlation).

## RESULTS

The results show that children were set in the age range of 7-12 with an average of  $9.5 \pm 1.5$  years. 52.8 % boys with average BMI as  $28.2 \pm 2.8$ . The results show that the physical dimension has the most problems compared to other dimensions from a child's viewpoint, but parents consider the emotional dimension as the most problematic dimension of their child life. According to the t- test, there is a significant difference in the pair between mean scores of the total scores of life quality from two viewpoints of parents and children ( $p < 0/001$ ). Also, the difference was significant between mean score of life quality in physical and emotional dimensions from two viewpoints of parents and children ( $p < 0/05$ ). But, there was no significant difference between mean score of life quality in social and school performance dimensions (table 1). Moreover, there is a significant difference between emotional life quality of girls and boys, according to Mann-Whitney test ( $p < 0/05$ ) (table 2). Spearman correlation coefficient also indicated that there was no significant difference in obese children with different life quality dimensions.

**Table 1. Comparison of Mean Life Quality of Obese Children from Two Viewpoints**

Parents of Obese Children	Obese Children	Life Quality Dimensions
1/60 $\pm$ 1/03	*1/ 25 $\pm$ 0/68	Physical
1/70 $\pm$ 1/08	**1/08 $\pm$ 0/82	Emotional
0/98 $\pm$ 1/09	0/71 $\pm$ 0/79	Social
0/91 $\pm$ 1/26	0/66 $\pm$ 1/11	School Performance
1/29 $\pm$ 0/87	*0/92 $\pm$ 0/59	Total

- The data are considered as standard deviation  $\pm$ mean.

\*  $p < 0/001$  compared to parents, \*\*  $p < 0/05$  compared to parents

**Table 2. Comparison of Mean Life Quality of Obese Children Regarding the Gender**

Boy	Girl	Life Quality Dimensions
0/99 $\pm$ 0/8	1/26 $\pm$ 0/77	Physical
1/08 $\pm$ 0/6	*1/52 $\pm$ 0/61	Emotional
0/77 $\pm$ 0/ 76	0/58 $\pm$ 0/77	Social
1/02 $\pm$ 0/65	1/21 $\pm$ 0/66	School Performance
0/96 $\pm$ 0/61	1/15 $\pm$ 0/53	Total

- The data are considered as standard deviation  $\pm$ mean.

\*  $p < 0/001$  compared to boys

## DISCUSSION

Different dimensions of life quality have been compared from two viewpoints of children and parents in the present study. The physical dimension is the most problematic dimension from a child's viewpoint, but emotional dimension is the most problematic from the viewpoint of parents. Generally, parents report the life quality of their children worse in all dimensions especially in physical and emotional dimensions. According to Baharizadeh and et al., all the life quality dimensions (physical, psychological performance and total score) in obese and overweight children was lower significantly compared to control children (15).

There are similar results about obese children and youth of 5-16 years compared to the normal weight control group (21). In addition to the difference between two viewpoints of obese children life quality, this difference also was observed in other patients, for example, in the study of Golrokh Moridi and et al., four dimensions of life quality of asthma disease, treatment of disease, concerns and connections have been compared from two viewpoints of asthma children and their parents. Mothers generally report the life quality of their children generally and specifically in two dimensions of problems related to the disease and its treatment method in lower level compared to child viewpoint (22).

Youssef et al. also suggest in a study titled as "life quality in children with functional abdominal pain from child and parent viewpoints" that life quality was worse from parent's viewpoint compared to children viewpoint (23). Alavi et al. also states in the comparative study of children and parents with thalassemia that parents report the life quality of their children worse generally and specifically in two physical and emotional dimensions compared to the patients (24).

These findings are similar to the results of recent studies and demonstrates that the obesity in children has significant damages to child life same as many other diseases. These damages involve and concern the child and his/her parents physically and emotionally. In these studies, parents consider the emotional dimension of their child life as the most problematic dimension that indicates a great stress for family members; while, the children consider the physical dimension as the most problematic dimension.

According to the Mann-Whitney test, the recent studies indicate that the emotional life quality of the girls was worse compared to boys. The study conducted by William and et al. on 204 obese children of 5-13 years show that the life quality of obese children was reported in low level from both viewpoints and the emotional dimension of girls was lower than boys (25). The lower level of emotional life quality of girls could be addressed to sensitivity of girls regarding their appearance and the comments of other people. Given the importance of parental role in forming the behavior of children and the effects of these behavioral patterns on life quality (26) and also modification of their unhealthy and unsafe behaviors (27), it seems that the study of parents comments regarding life quality of their obese children and providing appropriate strategies for decreasing these problems could be effective in on time prevention and treatment of obesity and health promotion.

## CONCLUSION

Considering the obtained results, it could be said that paying attention to the life quality of obese children from two viewpoints of child and mothers is necessary; so that the people that are at the risk of life quality decrease be identified as soon as possible and be used by preventive interventions to change the life quality of their life. Moreover, training the parents, informing them and their active cooperation in all the interventions is highly suggested for prevention, early detection and treatment of obesity in children.

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